File - Elgin.

980721

MEMORANDUM

TO: John Cooper

FROM: Tim Runyon

DATE: July 18, 1988

SUBJECT: Silbert Dial Company Site in Elgin, Illinois.

On July 7, 1988, I contacted Mr. Roger Jadown concerning his response to our letter dated June 13, 1988. Mr. Jadown is an architect representing Drs. Berkson and Herbson in the development of radium-contaminated property located at 1409 Dundee Avenue in Elgin, Illinois. In our letter, a copy of which is attached, we outlined the options they have for development of the property and request that they notify us if or when they proceed with the development.

During our conversation, Mr. Jadown indicated that Drs. Berkson and Herbson are concerned that any public knowledge of the radium contamination would hurt their business. They are orthopedic surgeons and plan to use both x-ray and fluoroscopy in their new offices. However, they are afraid patients may sue them if they learn that the site was once contaminated with radium.

According to Mr. Jadown, Drs. Berkson and Herbson purchased the property directly from Mr. M. J. Silbert. Although Mr. Silbert is deceased, Mrs. Silbert is still living in the Elgin area. Mr. Jadown believes the doctors will file suit against Mrs. Silbert for nondisclosure of the radium contamination. I'm sure a copy of our file (#08225) will be requested if a suit is filed. In the meantime, radium-contaminated soil that was removed from the edge of the building for testing remains in small piles behind the building.

STATE OF ILLINOIS
DEPARTMENT OF NUCLEAR SAFETY
1035 OUTER PARK DRIVE
SPRINGFIELD 62704
(217) 785-9900

TERRY R. LASH
DIRECTOR

June 13, 1988

Mr. Roger Jadown
Exemption 6 - PII

re: Building and property located at 1409 Dundee in Elgin, Illinois

Dear Mr. Jadown:

On April 14 and May 3, 1988 representatives of the Illinois Department of Nuclear Safety (IDNS) conducted a radiological survey of a building and property located at 1409 Dundee Avenue in Elgin, Illinois. Our records indicated that this property was previously owned and occuppied by the M.J. Silbert Watch Dial Company from 1954 thru 1971. Although the Silbert Company was registered with the State of Illinois (registration number 8225) as a "radiation installation", the facility was in operation prior to radioactive material licensing requirements. Also, our file indicates the building and property were decontaminated during the month of September of 1970 by Gammie Nuclear Service Company, Inc. The property is currently owned by Drs. Berkson and Herbson, Associates in Orthopedic Surgery, of Elgin. The radiological survey was performed at your request as developer of the site.

IDNS survey results show that gamma radiation levels, at the surface of drain pipes, located on the south interior wall of the building and along the base of east exterior wall of the building exceed those suggested limits specified in Illinois Administrative Code, Chapter 11, Section 340. According to Section 340, the gamma radiation level at 1 cm from the affected surfaces should not exceed 200uR/hr. Areas of the pipe's surface were as high as 300uR/hr and gamma radiation levels at the surface of the soil were as high as 400uR/hr.

Radiochemical analysis of soil samples indicate the presence of radium-226 at various depths in the soil outside the east wall of the building and in the yard adjacent to the building. The results, outlined in Attachment A, indicate the radium concentrations in soil taken from the east side of the building range from 27 picocuries per gram (pCi/g) to 381 pCi/g. Also, a soil sample taken from an isolated area of contamination in the yard showed activity levels of 1170 pCi/g. The normal average radium concentration in soil, for northern Illinois, is approximately 2 pCi/g.

Our survey team noted that soil samples taken at a depth of 5 feet near the center of the east exterior wall of the building appear to be saturated with fuel oil. The team's report indicated there is an underground fuel tank adjacent to this area. We suggest that the underground tank be investigated by notifying either the Illinois Environmental Protection Agency (IEPA) or the State Firemarshalls Office. The presence of fuel oil in the soil may have a bearing on your ability to dispose of the soil.

Although the direct radiation exposure and/or contamination hazard created by the elevated radium levels in the soil is small, there may be a potential for elevated indoor radon levels in adjacent buildings. Although there is not a linear correlation between radium levels in soil on the outside of a building and the indoor radon levels, higher radium concentrations yield more radon gas, increasing the indoor radon potential. For your information we have enclosed a copy of the United States Environmental Protection Agency's "A Citizens Guide To Radon".

Under the current IDNS Rules and Regulations, we cannot require you to further decommission the above mentioned building and property. The limits specified in the Illinois Administrative Code, Chapter 11, Section 340, limits for decommissioning and unrestricted release are guidelines rather than regulations. However, any radium contaminated soil removed from the property must be disposed of properly as low-level radioactive waste. In the best interest of public health and safety and we suggest one of the following options in the development of this site:

a. Secure the services of a radiological contractor to further characterize and decommission the M.J. Silbert Watch Dial site. Removal, packaging and disposal of all radium contaminated soils and building parts would ensure compliance with all current guidelines and future regulations regarding radioactive materials. Total removal of all radium contaminated debris would also decrease the possibility of elevated indoor radon levels once the building has been renovated and the parking lot has been repaved.

b. Move the radium contaminated soil from along the east foundation wall of the building to a remote location under the future site parking lot. Ensure there are no conduits for migration of radon gas into adjacent structures. Movement of the radium contaminated soil from near the foundation of the building would decrease the possibility of elevated indoor radon levels. Covering the contaminated soil with gravel and asphalt should reduce external radiation levels to within the limits suggested in Part 340 of the Illinois Administrative code.

Even though the radium contaminated soil could be relocated on the site, the radium contaminated piping on the inside of the building should be removed and disposed of as low-level radioactive waste. Both of the above activities should be performed under the direction of a radiological contractor. A list of contractors that have been used IDNS is available upon request. Should you choose to totally decommission the site, IDNS staff would be available to provide health physics advice and verification of decontamination.

Please notify this office of your future activities regarding the decommissioning, developement or sale of this property. We appreciate your cooperation in this matter. If you have questions please do not hesitate to call.

Sincerely,

John W. Cooper, Manager
Office of Environmental Safety

cc: Drs. Berkson and Herbson
Enclosures

ATTACHMENT A

Silberts Watch Dial Site

Soil Sample Results

Ra226 activity in pCi/gram

Depth in feet	Boring A	Boring B	Boring C
0-1'	157	156	28
1'-2'	27	28	212
2'-3'	381	No Sample	64
3'-4'	47	No Sample	No Sample
4'-5'	159	No Sample	No Sample